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Plug-in lightning current arrester, in accordance with Type 1/Class I, with integrated surge-proof fuse, for 3-phase power supply networks with combined PE and N installed in one conductor (L1, L2, L3, PEN).

#### Your advantages

- ☑ Integrated combination of spark gap without line follow current and surge-proof fuse
- ☑ Can be used without separate backup fuse thanks to integrated overcurrent protection
- Free of leakage current, suitable for use in the pre-meter area
- Can be inserted with innovative push-pull locking mechanism
- Optical, mechanical status indicator
- With floating remote indication contact



## **Key Commercial Data**

Packing unit	1 pc
GTIN	4 055626 176437
GTIN	4055626176437
Weight per Piece (excluding packing)	1,755.000 g
Custom tariff number	85363030
Country of origin	Germany

### Technical data

#### **Dimensions**

Height	167 mm
Width	106.8 mm
Depth	74.5 mm
Horizontal pitch	6 Div.



# Technical data

### Ambient conditions

Degree of protection	IP20 (only when all terminal points are used)
Ambient temperature (operation)	-40 °C 80 °C
Ambient temperature (storage/transport)	-40 °C 80 °C
Altitude	≤ 2000 m (amsl (above mean sea level))
Permissible humidity (operation)	5 % 95 %

#### General

IEC test classification	1/11
	T1 / T2
EN type	T1 / T2
IEC power supply system	TN-C
	TT
Mode of protection	L-PEN
	L-PE
Mounting type	DIN rail: 35 mm
Color	light grey RAL 7035
	traffic grey A RAL 7042
Housing material	PA 6.6-FR 20 % GF
	PBT-FR
Degree of pollution	2
Flammability rating according to UL 94	V-0
Туре	DIN rail module, two-section, divisible
Number of positions	3
Surge protection fault message	Optical, remote indicator contact

### Protective circuit

Nominal voltage U <sub>N</sub>	400/690 V AC (TN-C)
	400 V AC (IT)
Nominal frequency f <sub>N</sub>	50 Hz (60 Hz)
Maximum continuous voltage U <sub>C</sub>	440 V AC
Residual current I <sub>PE</sub>	≤ 5 µA
Nominal discharge current I <sub>n</sub> (8/20) µs	25 kA
Maximum discharge current I <sub>max</sub> (8/20) μs	50 kA
Impulse discharge current (10/350) µs, charge	12.5 As
Impulse discharge current (10/350) µs, specific energy	160 kJ/Ω
Impulse discharge current (10/350) µs, peak value l <sub>imp</sub>	25 kA
Follow current interrupt rating I <sub>fi</sub>	50 kA
Short-circuit current rating I <sub>SCCR</sub>	50 kA
Voltage protection level U <sub>p</sub>	≤ 2.5 kV
Residual voltage U <sub>res</sub>	$\leq$ 2.1 kV (at I <sub>n</sub> )



## Technical data

### Protective circuit

	≤ 2.8 kV (at 50 kA)
	≤ 1.7 kV (at 12.5 kA)
	≤ 1.5 kV (at 5 kA)
	≤ 1.35 kV (at 2.5 kA)
Front of wave sparkover voltage at 6 kV (1.2/50) µs	≤ 2.5 kV
TOV behavior at U <sub>T</sub>	580 V AC (5 s / withstand mode)
	760 V AC (120 min / withstand mode)
	1640 V AC (200 ms / safe failure mode)
Response time t <sub>A</sub>	≤ 100 ns

## Indicator/remote signaling

Switching function	PDT contact
Operating voltage	12 V AC 250 V AC
	125 V DC (200 mA DC)
Operating current	10 mA AC 1 A AC
	1 A DC (30 V DC)
Connection method	Plug-in/screw connection via COMBICON
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section flexible	0.14 mm² 1.5 mm²
Conductor cross section solid	0.14 mm² 1.5 mm²
Conductor cross section AWG	28 16

### Connection data

Connection method	Screw connection
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	18 mm
Conductor cross section flexible	2.5 mm² 35 mm²
Conductor cross section solid	2.5 mm² 35 mm²
Conductor cross section AWG	13 2
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm² 16 mm²

### Standards and Regulations

Standards/regulations	IEC 61643-11 2011
	EN 61643-11 2012

## **Environmental Product Compliance**

REACh SVHC	N,N-dimethylacetamide 127-19-5



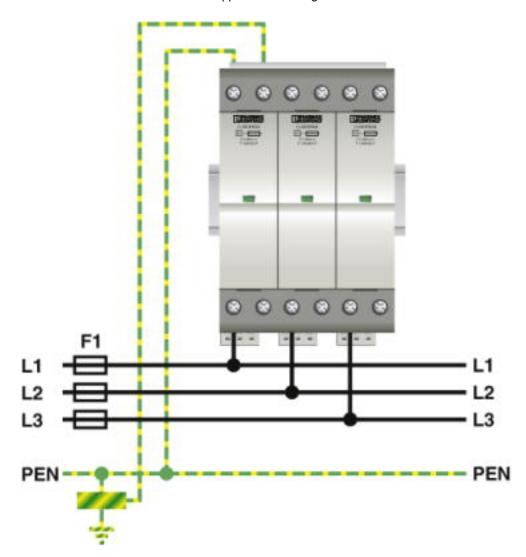
## Technical data

## **Environmental Product Compliance**

	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

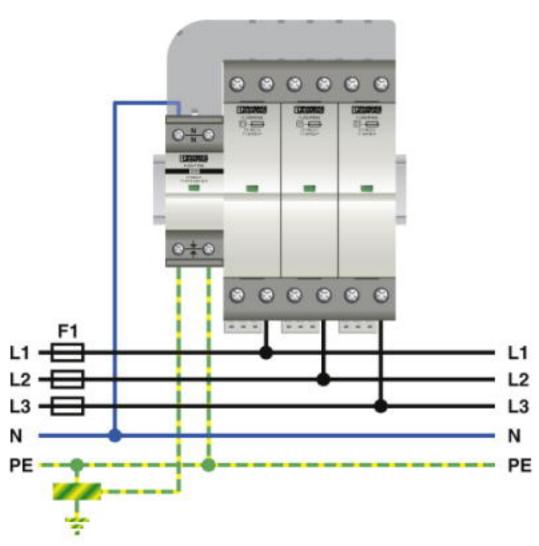
# Drawings

## Application drawing



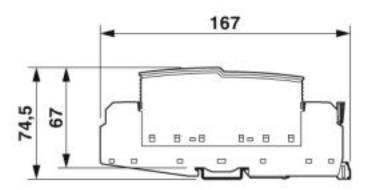






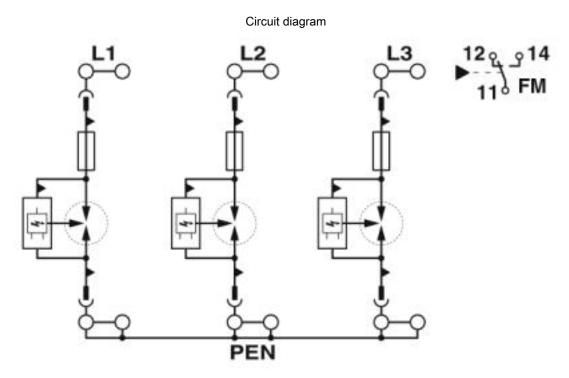
Structure of a 3+1 circuit for TN-S-/TT systems with an N/PE spark gap and wiring bridge.

Dimensional drawing









## Classifications

## eCl@ss

eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCI@ss 7.0	27130802
eCl@ss 8.0	27130802
eCl@ss 9.0	27130802

### **ETIM**

ETIM 4.0	EC000381
ETIM 5.0	EC000381
ETIM 6.0	EC000381
ETIM 7.0	EC000381

## UNSPSC

UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620



### Classifications

U	N	S	Р	9	C

UNSPSC			
UNSPSC 21.0		39121620	
Approvals			
Approvals			
Approvals			
CCA / KEMA-KEUR / IECEE	CB Scheme / EAC		
Ex Approvals			
Approval details			
CCA			NTR-NL 7490
OOA			WINCINE 1430
KEMA KEUD	IZEMA	hu. // dalah ang Control ang	0400407.04
KEMA-KEUR	KEMA	http://www.dekra-certification.com	2188437.01
IECEE CB Scheme	<b>C</b> P	http://www.iecee.org/	NL-41433
IECEE OB SCHEINE	<b>CB</b> scheme	nttp://www.iecee.org/	NL-41433
EAC	rnr		RU C-
LAO	EAC		DE.A*30.B01561

#### Accessories

Accessories

Bridge

Wiring bridge - FLT-SEC-H MPB-3+1 - 2910501

מחחחחח מה Wiring bridge for connecting three FLASHTRAB SEC HYBRID lightning arresters with an N/PE spark gap to a 3+1 circuit for TN-S-/TT systems. Connecting pitch of 17.5 mm, 1-phase, 8-pos., 35 mm² cross section with stable plastic housing for the required touch proofness when used as neutral conductor bridge.



#### Accessories

Wiring bridge - MPB 18/1-8/35 - 2908704



Wiring bridge for modules with 17.5 mm connecting pitch, 1-phase, 8-pos., 35 mm<sup>2</sup> cross section, and mounted end caps

Wiring bridge - MPB 18/1-6/35 - 2908705



Wiring bridge for modules with 17.5 mm connecting pitch, 1-phase, 6-pos., 35 mm² cross section, and mounted end caps

#### Device marking

Label - EML (20XE)R - 0803452



Label, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK ROLL X1, THERMOMARK ROLL 2.0, THERMOMARK ROLL, mounting type: adhesive, lettering field size: continuous x 20 mm

#### Label - EML (20XE)R YE - 0803453



Label, Roll, yellow, unlabeled, can be labeled with: THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK ROLL X1, THERMOMARK ROLL 2.0, THERMOMARK ROLL, mounting type: adhesive, lettering field size: continuous x 20 mm

#### End block

End clamp - CLIPFIX 35 - 3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

### Marker pen



#### Accessories

Marker pen - X-PEN 0,35 - 0811228



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

### Spare parts

Type 1 surge protection plug - FLT-SEC-H-T1-440/25-P - 2907261



Replacement plug for lightning current arresters from the FLASHTRAB SEC HYBRID 440 product range, for L-N and L-PEN paths.

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